

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/694,207  
Source: IFWO  
Date Processed by STIC: 03/09/2006

# ***ENTERED***



IFWO

## RAW SEQUENCE LISTING

DATE: 03/09/2006

PATENT APPLICATION: US/10/694,207

TIME: 11:07:51

Input Set : N:\CrF3\RULE60\10694207.raw.txt

Output Set: N:\CRF4\03082006\J694207.raw

```

1 <110> APPLICANT: Kandimalla, Ekambar R.
2     Zhao, Qiuyan
3     Yu, Dong
4     Agrawal, Sudhir
5 <120> TITLE OF INVENTION: Modulation of Immunostimulatory Activity of
6     Immunostimulatory
7     Modified oligodeoxynucleotide phosphorothioate Analogs by
8     Positional Chemical Changes
9 <130> FILE REFERENCE: HYZ-479CP (47508.577)
10 <140> CURRENT APPLICATION NUMBER: US/10/694,207
11 <141> CURRENT FILING DATE: 2003-10-27
12 <150> PRIOR APPLICATION NUMBER: US/09/965,116
13 <151> PRIOR FILING DATE: 2001-09-26
14 <150> PRIOR APPLICATION NUMBER: US 09/712,898
15 <151> PRIOR FILING DATE: 2000-11-15
16 <150> PRIOR APPLICATION NUMBER: US 60/235,452
17 <151> PRIOR FILING DATE: 2000-09-26
18 <150> PRIOR APPLICATION NUMBER: US 60/235,453
19 <151> PRIOR FILING DATE: 2000-09-26
20 <160> NUMBER OF SEQ ID NOS: 112
21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 18
24 <212> TYPE: DNA
25 <213> ORGANISM: Artificial Sequence
26 <220> FEATURE:
27 <223> OTHER INFORMATION: synthesis of CpG-PS-oligos containing cytosine analogs
28 <400> SEQUENCE: 1
29     ctatctgacg ttctctgt                                     18
30 <210> SEQ ID NO: 2
31 <211> LENGTH: 18
32 <212> TYPE: DNA
33 <213> ORGANISM: Artificial Sequence
34 <220> FEATURE:
35 <223> OTHER INFORMATION: synthesis of CpG-PS-oligos containing cytosine analogs
36 <220> FEATURE:
37 <221> NAME/KEY: modified_base
38 <222> LOCATION: 9
39 <223> OTHER INFORMATION: c = 5-hydroxydeoxycytidine
40 <400> SEQUENCE: 2
41     ctatctgacg ttctctgt                                     18
42 <210> SEQ ID NO: 3
43 <211> LENGTH: 18

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/694,207

DATE: 03/09/2006

TIME: 11:07:51

Input Set : N:\Crf3\RULE60\10694207.raw.txt

Output Set: N:\CRF4\03082006\J694207.raw

```

47 <212> TYPE: DNA
48 <213> ORGANISM: Artificial Sequence
49 <220> FEATURE:
50 <223> OTHER INFORMATION: synthesis of CpG-PS-oligos containing cytosine analogs
51 <220> FEATURE:
52 <221> NAME/KEY: modified_base
53 <222> LOCATION: 10
54 <223> OTHER INFORMATION: c = 5-hydroxydeoxycytidine
55 <400> SEQUENCE: 3
56     ctatctgacc ttctctgt                                18
58 <210> SEQ ID NO: 4
59 <211> LENGTH: 18
60 <212> TYPE: DNA
61 <213> ORGANISM: Artificial Sequence
62 <220> FEATURE:
63 <223> OTHER INFORMATION: synthesis of CpG-PS-oligos containing cytosine analogs
64 <220> FEATURE:
65 <221> NAME/KEY: modified_base
66 <222> LOCATION: 9
67 <223> OTHER INFORMATION: c = N4-ethyldeoxycytidine
68 <400> SEQUENCE: 4
69     ctatctgacg ttctctgt                                18
71 <210> SEQ ID NO: 5
72 <211> LENGTH: 18
73 <212> TYPE: DNA
74 <213> ORGANISM: Artificial Sequence
75 <220> FEATURE:
76 <223> OTHER INFORMATION: synthesis of CpG-PS-oligos containing cytosine analogs
77 <220> FEATURE:
78 <221> NAME/KEY: modified_base
79 <222> LOCATION: 10
80 <223> OTHER INFORMATION: c = N4-ethyldeoxycytidine
81 <400> SEQUENCE: 5
82     ctatctgacc ttctctgt                                18
84 <210> SEQ ID NO: 6
85 <211> LENGTH: 16
86 <212> TYPE: DNA
87 <213> ORGANISM: Artificial Sequence
88 <220> FEATURE:
89 <223> OTHER INFORMATION: synthesis of end-blocked CpG-PS modified
90     oligodeoxynucleotide
91     phosphorothioate
92 <400> SEQUENCE: 6
93     aaggtcgagc gttctc                                16
95 <210> SEQ ID NO: 7
96 <211> LENGTH: 18
97 <212> TYPE: DNA
98 <213> ORGANISM: Artificial Sequence
99 <220> FEATURE:

```

## RAW SEQUENCE LISTING

DATE: 03/09/2006

PATENT APPLICATION: US/10/694,207

TIME: 11:07:51

Input Set : N:\Cr3\RULE60\10694207.raw.txt

Output Set: N:\CRF4\03082006\J694207.raw

```

100 <223> OTHER INFORMATION: synthesis of end-blocked CpG-PS modified
101     oligodeoxynucleotide
102     phosphorothioate
103 <400> SEQUENCE: 7
104     atggcgcacg ctgggaga                                     18
106 <210> SEQ ID NO: 8
107 <211> LENGTH: 18
108 <212> TYPE: DNA
109 <213> ORGANISM: Artificial Sequence
110 <220> FEATURE:
111 <223> OTHER INFORMATION: oligodeoxynucleotide phosphorothioate
112 <400> SEQUENCE: 8
113     cctactagcg ttctcatc                                     18
115 <210> SEQ ID NO: 9
116 <211> LENGTH: 18
117 <212> TYPE: DNA
118 <213> ORGANISM: Artificial Sequence
119 <220> FEATURE:
120 <223> OTHER INFORMATION: oligodeoxynucleotide phosphorothioate
121 <220> FEATURE:
122 <221> NAME/KEY: modified_base
123 <222> LOCATION: 10
124 <223> OTHER INFORMATION: g = 1',2'-Dideoxyribose
125 <400> SEQUENCE: 9
126     cctactagcg ttctcatc                                     18
128 <210> SEQ ID NO: 10
129 <211> LENGTH: 18
130 <212> TYPE: DNA
131 <213> ORGANISM: Artificial Sequence
132 <220> FEATURE:
133 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
134 <220> FEATURE:
135 <221> NAME/KEY: modified_base
136 <222> LOCATION: 8
137 <223> OTHER INFORMATION: g = 1',2'-Dideoxyribose
138 <400> SEQUENCE: 10
139     cctactagcg ttctcatc                                     18
141 <210> SEQ ID NO: 11
142 <211> LENGTH: 18
143 <212> TYPE: DNA
144 <213> ORGANISM: Artificial Sequence
145 <220> FEATURE:
146 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
147 <220> FEATURE:
148 <221> NAME/KEY: modified_base
149 <222> LOCATION: 7
150 <223> OTHER INFORMATION: a = 1',2'-Dideoxyribose
151 <400> SEQUENCE: 11
152     cctactagcg ttctcatc                                     18

```

## RAW SEQUENCE LISTING

DATE: 03/09/2006

PATENT APPLICATION: US/10/694,207

TIME: 11:07:51

Input Set : N:\Crif3\RULE60\10694207.raw.txt

Output Set: N:\CRF4\03082006\J694207.raw

```

154 <210> SEQ ID NO: 12
155 <211> LENGTH: 18
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial Sequence
158 <220> FEATURE:
159 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
160 <220> FEATURE:
161 <221> NAME/KEY: modified_base
162 <222> LOCATION: 6
163 <223> OTHER INFORMATION: t = 1',2'-Dideoxyribose
164 <400> SEQUENCE: 12
165      cctactagcg ttctcatc                                     18
167 <210> SEQ ID NO: 13
168 <211> LENGTH: 18
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial Sequence
171 <220> FEATURE:
172 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
173 <220> FEATURE:
174 <221> NAME/KEY: modified_base
175 <222> LOCATION: 5
176 <223> OTHER INFORMATION: c = 1',2'-Dideoxyribose
177 <400> SEQUENCE: 13
178      cctactagcg ttctcatc                                     18
180 <210> SEQ ID NO: 14
181 <211> LENGTH: 18
182 <212> TYPE: DNA
183 <213> ORGANISM: Artificial Sequence
184 <220> FEATURE:
185 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
186 <220> FEATURE:
187 <221> NAME/KEY: modified_base
188 <222> LOCATION: 4
189 <223> OTHER INFORMATION: a = 1',2'-Dideoxyribose
190 <400> SEQUENCE: 14
191      cctactagcg ttctcatc                                     18
193 <210> SEQ ID NO: 15
194 <211> LENGTH: 18
195 <212> TYPE: DNA
196 <213> ORGANISM: Artificial Sequence
197 <220> FEATURE:
198 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
199 <220> FEATURE:
200 <221> NAME/KEY: modified_base
201 <222> LOCATION: 4
202 <223> OTHER INFORMATION: a = 1',2'-Dideoxyribose
203 <400> SEQUENCE: 15
204      cctactagcc ttctcatc                                     18
206 <210> SEQ ID NO: 16

```

## RAW SEQUENCE LISTING

DATE: 03/09/2006

PATENT APPLICATION: US/10/694,207

TIME: 11:07:51

Input Set : N:\Crf3\RULE60\10694207.raw.txt

Output Set: N:\CRF4\03082006\J694207.raw

```

207 <211> LENGTH: 18
208 <212> TYPE: DNA
209 <213> ORGANISM: Artificial Sequence
210 <220> FEATURE:
211 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
212 <220> FEATURE:
213 <221> NAME/KEY: modified_base
214 <222> LOCATION: 11
215 <223> OTHER INFORMATION: t = 1',2'-Dideoxyribose
216 <400> SEQUENCE: 16
217      cctactagcg ttctcatc                                     18
219 <210> SEQ ID NO: 17
220 <211> LENGTH: 18
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
223 <220> FEATURE:
224 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
225 <220> FEATURE:
226 <221> NAME/KEY: modified_base
227 <222> LOCATION: 12
228 <223> OTHER INFORMATION: t = 1',2'-Dideoxyribose
229 <400> SEQUENCE: 17
230      cctactagcg ttctcatc                                     18
232 <210> SEQ ID NO: 18
233 <211> LENGTH: 18
234 <212> TYPE: DNA
235 <213> ORGANISM: Artificial Sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
238 <220> FEATURE:
239 <221> NAME/KEY: modified_base
240 <222> LOCATION: 13
241 <223> OTHER INFORMATION: c = 1',2'-Dideoxyribose
242 <400> SEQUENCE: 18
243      cctactagcg ttctcatc                                     18
245 <210> SEQ ID NO: 19
246 <211> LENGTH: 18
247 <212> TYPE: DNA
248 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
250 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
251 <220> FEATURE:
252 <221> NAME/KEY: modified_base
253 <222> LOCATION: 14
254 <223> OTHER INFORMATION: t = 1',2'-Dideoxyribose
255 <400> SEQUENCE: 19
256      cctactagcg ttctcatc                                     18
258 <210> SEQ ID NO: 20
259 <211> LENGTH: 18

```

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/694,207

DATE: 03/09/2006

TIME: 11:07:52

Input Set : N:\Crif3\RULE60\10694207.raw.txt

Output Set: N:\CRF4\03082006\J694207.raw